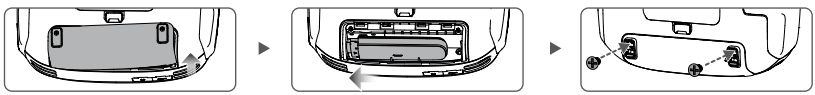
Mounting the Dongle

- Only use a DJI approved dongle.
- The dongle supports various network standards. Use a SIM card that is compatible with the chosen mobile network provider and select a mobile data plan according to the planned level of usage.
- Use the dongle and the SIM card in accordance with their manuals.
- The dongle and SIM card are used to enable the remote controller to access to specific networks and platforms, such as the DJI Agriculture Management Platform. Be sure to mount them correctly, or else network access will not be available.

1. Lift the dongle compartment cover at the gap at its lower right corner, then remove it.
2. Insert the SIM card into the dongle and then insert the dongle into the USB port inside the compartment. Test to ensure that they function properly.*
3. Cut the connecting string between the dongle cap and dongle body if there is one.
4. Re-mount the dongle compartment cover. To secure the cover, open the silicone protectors on the cover, insert and tighten two M1.6×3 screws, then close the silicone protectors.



* Test procedure: Press the remote controller power button once, then press again and hold to turn the remote controller on. In the DJI MG app tap ⚙ and select Network Diagnostics. If the statuses of all the devices in the network chain are shown in green the dongle and SIM card are functioning properly.

Remote Controller

Profile

The remote controller uses the DJI OcuSync dual-band video downlink system, has a maximum control distance of up to 3.11 mi (5 km). It includes a dedicated, Android-based display that runs the DJI MG app independently for operation planning and aircraft status display. Its Multi-Aircraft Control mode can be used to coordinate the operation of up to five aircraft at the same time to improve operation efficiency.

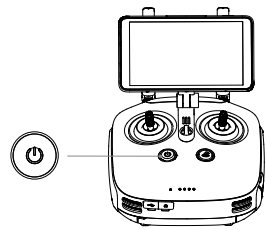
Stick mode can be set to Mode 1, Mode 2, and Mode 3, or to a custom mode in the DJI MG app. It is recommended to set it to Mode 2 for beginners.
Mode 1: The right stick serves as the throttle.
Mode 2: The left stick serves as the throttle.

Using the Remote Controller

Turning the Remote Controller On and Off

The remote controller uses a removable, interchangeable Intelligent Battery. The battery level is indicated via the Battery Level LEDs on the front panel after the battery is mounted. Follow the steps below to turn on your remote controller:

1. When the remote controller is turned off, press the Power button once to check the current battery level, indicated by the Battery Level LEDs. If the battery level is too low, recharge before use.
2. Press the Power button once. Then press and hold to turn on the remote controller.
3. The remote controller will beep when turned on. The Status LED will rapidly blink green, indicating that the remote controller is linking to the aircraft. They will glow solid green when linking is complete.
4. Repeat Step 2 to turn off the remote controller.

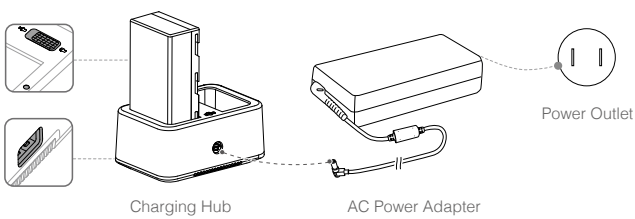


The remote controller internal backup battery allows users to insert and remove the external Intelligent Battery while the remote controller is still on and in use. The device will enter Sleep Mode to save power. Users are then required to replace the Intelligent Battery within three minutes, or the remote controller will power off.

Charging the Remote Controller

Charge the remote controller Intelligent Battery using the included AC power adapter and Charging Hub.

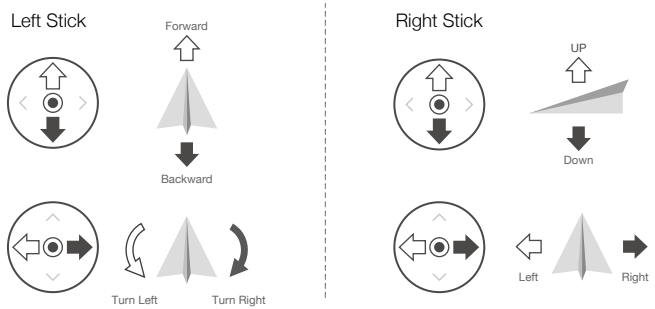
1. Place the battery into the Charging Hub, connect the AC power adapter to the Charging Hub, and then connect the charger to a power outlet (100-240V, 50/60Hz).
2. The Charging Hub will intelligently charge batteries in sequence according to battery power levels from high to low.
3. The Status LED blinks green when charging and turns solid green when fully charged. The buzzer will begin beeping when charging is complete. Remove the battery or turn off the buzzer to stop it.



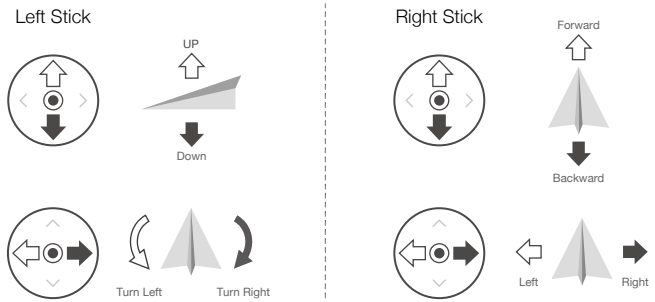
Operating the Aircraft

This section explains how to control the orientation of the aircraft through the remote controller. Control can be set to Mode 1, Mode 2 or Mode 3, or to a custom mode.

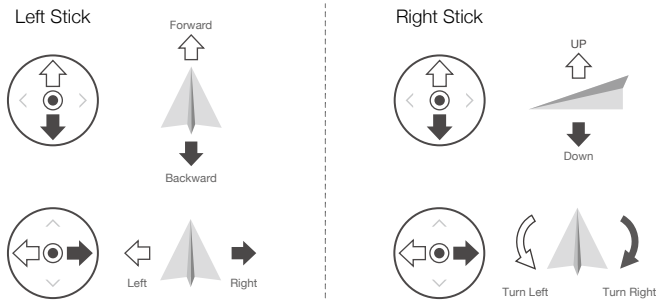
Mode 1



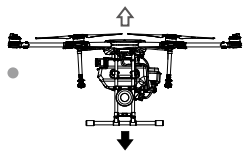
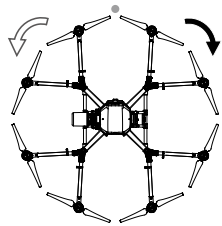
Mode 2



Mode 3

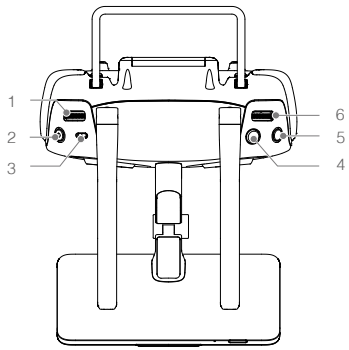


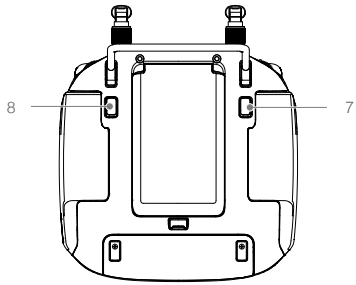
For example, the following description uses Mode 2:

Remote Controller (Mode 2)	Aircraft (● Indicates nose direction)	Remarks
		Throttle Stick: Vertical movement of the left stick controls the aircraft's elevation. Push up to ascend and push down to descend. Use the left stick to take off when the motors are spinning at idle speed. The aircraft will hover in place if the stick is in the center position. The farther the stick is pushed away from the center position, the faster the aircraft will change elevation.
		Yaw Stick: Horizontal movement of the left stick controls the aircraft's heading. Push left to rotate the aircraft counterclockwise and push right to rotate clockwise. The aircraft will hover in place if the stick is in the center position. The farther the stick is pushed away from the center position, the faster the aircraft will rotate.
		Pitch Stick: Vertical movement of the right stick controls the aircraft's pitch. Push up to fly forwards and press down to fly backwards. The aircraft will hover in place if the stick is in the center position. Push the stick farther for a larger pitch angle and faster flight.
		Roll Stick: Horizontal movement of the right stick controls the aircraft's roll. Push the stick left to fly left and right to fly right. The aircraft will hover in place if the stick is in the central position. Push the stick farther for a larger roll angle and faster flight.

Controlling the Spraying System

Complete an operation remotely via the Spray Rate or Aircraft Control Switch dials, or the Spray, A/B, and C1/C2 buttons.





1 Spray Rate Dial

In Manual or Manual Plus operation mode, turn left to reduce and right to increase the spray rate*. The DJI MG app will indicate the current spray rate.

* Spray rate may vary according to the nozzle model and viscosity of the liquid.

2 Spray Button

In Manual operation mode, press to start or stop spraying.

3 Pause Switch

Toggle to pause the operation in Route or A-B Route operation modes. The aircraft hovers and records the breakpoint, and then the aircraft can be controlled manually. To resume a Route operation, select the operation in the app. To resume an A-B Route operation, tap Resume on the screen. Then the aircraft returns to the breakpoint automatically and continues the operation.

During RTH, toggle to pause RTH. The aircraft hovers, and then the aircraft can be controlled manually.

4 Button A

Records Point A of the operation route in A-B Route operations by default. Use the app to customize the button.

5 Button B

Records Point B of the operation route in A-B Route operations by default. Use the app to customize the button.

6 Aircraft Control Switch Dial

Turn and press the dial to switch among the aircraft when using Multi-Aircraft Control function.

7 Button C1

When you are planning a field, it starts or ends obstacle measurement. When planning a field, the function cannot be customized. When you are not planning a field, the default function is Map/FPV Switch. Use the app to customize the button.

8 Button C2

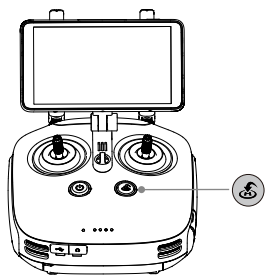
When you are planning a field, it adds a waypoint. When planning a field, the function cannot be customized. When you are not planning a field, then the default function is Delete Route. Use the app to customize the button.

The table below is a summary for how to control the spraying system via the remote controller in different modes.

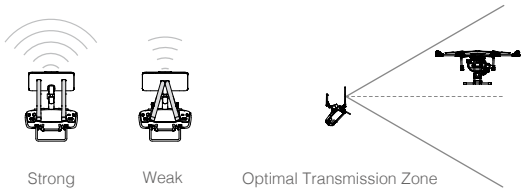
Mode	Spray Rate Dial	Spray Button	Pause Switch	Button A	Button B	Aircraft Control Switch Dial	Button C1	Button C2
Route operation mode	/	/	Pause	Customizable	Customizable	Switch between aircraft	Customizable	Customizable
A-B Route operation mode	/	/	Pause	Customizable	Customizable	/	Customizable	Customizable
Manual operation mode	Adjust spray rate	Start or stop spraying	/	Customizable	Customizable	/	Customizable	Customizable
Manual Plus operation mode	Adjust maximum spray rate	/	/	Customizable	Customizable	/	Customizable	Customizable
Field Plan	/	/	/	/	/	/	Start or end obstacle measurement	Add a waypoint

RTH Button

Press and hold the RTH button to bring the aircraft back to the last recorded Home Point. The LED around the RTH Button will blink white during RTH procedure. Users can control aircraft heading while it flies to the Home Point. Press this button again to cancel RTH and regain control of the aircraft.

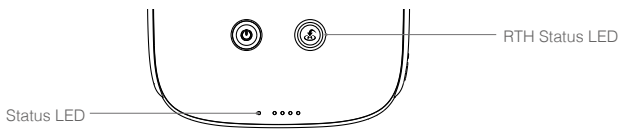


Optimal Transmission Zone



Try to keep the aircraft inside the optimal transmission zone. If the signal is weak, adjust the antennas or fly the aircraft closer.

Remote Controller LEDs



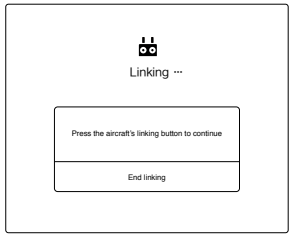
The Status LED indicates the connection status between the remote controller and the aircraft. The RTH Status LED indicates the Return to Home status of the aircraft. See the table below for details on these indicators:

Status LED	Sound	Remote Controller Status
Ⓡ —— Solid Red	♪ chime	The remote controller is not connected to the aircraft.
Ⓖ —— Solid Green	♪ chime	The remote controller is connected to the aircraft.
Ⓡ ····· Blinks Red	Repeating slow beep	Remote controller error.
RTH Status LED	**Sound**	**Aircraft Status**
Ⓦ —— Solid White	♪ chime	Return to Home procedure is initiated.
Ⓦ ····· Blinking white	Repeating single beep	Sending Return to Home command to the aircraft.
Ⓦ ····· Blinking white	Repeating double beep	The aircraft is returning to the Home Point.

Linking the Remote Controller

The remote controller is linked to your aircraft by default. Linking is only required when using a new remote controller for the first time. If using Multi-Aircraft Control function, linking all the aircraft to the same remote controller is required.

1. Power on the remote controller and open the DJI MG app. Power on the aircraft.
2. Tap Perform an Operation to enter Operation View and tap ●●● > . Select Aircraft as the linking device, tap Single Linking or Multi Linking (if Multi-Aircraft Control is in use), and then tap Starting Linking. The Status LED blinks blue and the remote controller sounds double beep repeatedly, indicating that the remote controller is ready for linking.



3. Press the Link button on the aircraft. Then release and wait for a few seconds.
4. The Status LED and Link LED will glow solid green if linking is successful.
   If the Link LED does not glow solid green, linking failure occurred. Enter linking status again and retry.
5. Repeat steps 3 and 4 to complete linking between all the aircraft (up to five) and the remote controller, if Multi Linking is selected. Then tap End linking.

Multi-Aircraft Control Function

The remote controller features Multi-Aircraft Control function which can be used to coordinate the operation of up to five aircraft at the same time, enabling pilots to work very efficiently. It is recommended for large spray areas. Turn the Aircraft Control Switch Dial on the remote controller to switch between different aircraft for single control of the desired aircraft.

- The Multi-Aircraft Control function can only be used in Route operation mode in the current period. Ensure to complete field planning and related configurations before entering Multi-Aircraft Control mode, since operations of other modes cannot be used except Route operations.
- When using the Multi-Aircraft Control function, to avoid interference among operation groups, do not operate more than three groups within a 50-meter radius. Unless using the MG-1P RTK with a DJI D-RTK 2 Mobile Station, it is necessary to manually configure each remote controller's serial number in the DJI MG app.

Enter Multi-Aircraft Control Mode

1. Link all the aircraft (up to five) to the same remote controller according to the steps in "Linking the Remote Controller".

2. Close the settings menu after linking. The linked aircraft will be listed on the left of the screen sorted by number.

Switch Control

Users can switch control among different aircraft via the aircraft status box on the left screen in the app or the Aircraft Control Switch Dial on the remote controller.

Switch in the App

Tap the status box of the corresponding number in the app. The side of the box will turn blue and the ESC LEDs of the aircraft will blink red quickly, indicating the corresponding aircraft has been selected.

Switch by the Dial

1. Turn the Aircraft Control Switch Dial on the remote controller. There will be an arrow near the corresponding status box in the app, and the ESC LEDs of the aircraft will blink yellow quickly, indicating the corresponding aircraft is in pre-selected status.
2. Press the dial once. The side of the box in the app will turn blue and the ESC LEDs of the aircraft will blink red quickly, indicating the corresponding aircraft has been selected.

Multi-Aircraft Operations

1. Select the desired aircraft by switching control.
2. Tap the status box of the selected aircraft, then tap on the left of the screen, or tap on top of the screen to select and use an operation in the “Field” tag. Perform the operation after tapping Rectify Offset and setting operation parameters. The selected flight routes data will be uploaded to the aircraft.
3. User an operation to each aircraft. Tap to show the status boxes of all the aircraft and tap another status box to switch to the corresponding aircraft.
4. Tap Start after using operations for all the aircraft. Users can slide the sliders for each aircraft in the prompted window or slide the slider for all aircraft at the bottom position to take off all the aircraft and start operations at the same time.
5. If there is any emergency during operation, toggle the Pause Switch on the remote controller to brake all the aircraft. Then all Route operations will be paused and the aircraft will hover in place and can be controlled manually. To continue the operation, users should use the operation again in Executing tag in icon.

Exit from Multi-Aircraft Control Mode

Users can exit from the mode through the following three methods.

Method 1: Link the remote controller to the only one desired aircraft according to the previous instructions (Single-Machine Pairing should be selected).

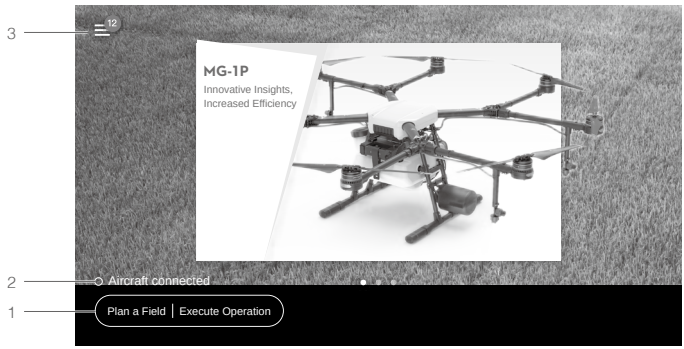
Method 2: Delete other aircraft and remain the only one aircraft in the Linked Aircraft list. So the remote controller can control this aircraft only and perform operations of other operation modes.

Method 3: Power off the other aircraft that don’t need control and power on the only one desired aircraft. So the remote controller can control this aircraft only and perform operations of other operation modes. Note: if power on the other aircraft again, the remote controller and the linked aircraft will enter Multi-Aircraft Control mode automatically. Exit from this mode completely through method 1 or 2 if needed.

DJI MG App

The DJI MG app is designed for agricultural applications and is able to display the system status and configure various settings. After planning a field via the app's intelligent operation planning system, the aircraft can operate automatically following the produced flight route.

Main Screen

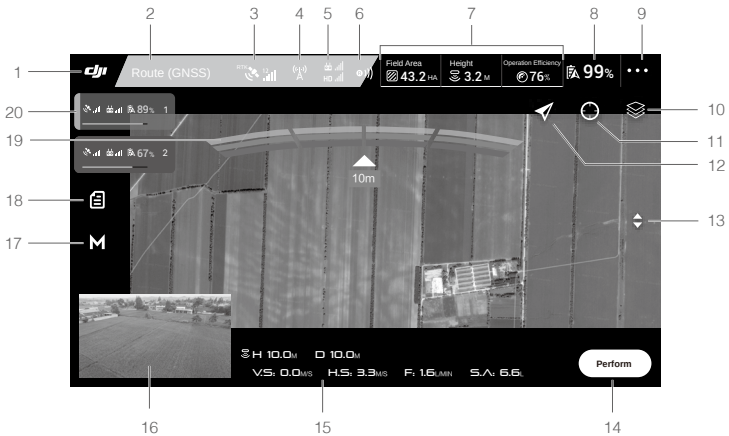


1. Plan a Field | Execute Operation
   Plan a Field: Tap the button and then select planning method to plan a field.
   Execute Operation: Tap to enter Operation View to view the aircraft status, configure settings, and switch between different operation modes.

2. Aircraft Connection Status
   O : Shows whether the aircraft is connected to the remote controller.

3. Menu
   Tap ☰ to manage tasks, view user information, aircraft information, and configure general settings.
   : Task Management — View planned fields and operation progress. You can synchronize the local data with the data on the DJI Agricultural Management Platform.
   : User Info — View user information of the account logged in.
   : Aircraft Info — View the information of the connected aircraft and manuals.
   : General Settings — Tap for settings such as units of measurement, network diagnosis, and Android system settings.

Operation View



1. Main Screen
   : Tap this icon to return to the main screen.
2. System Status
   Route (GNSS) : Indicates current flight modes, operation modes, and warning messages.
3. GNSS Status
   / : Shows the current GNSS signal strength and number of satellites connected. When using RTK data, “RTK” will appear in the upper left corner.
4. RTK Status
   Icons displayed when using RTK data. The display varies when using D-RTK 2 or Network RTK Service.
   : Displays RTK signal strength when using the D-RTK 2.
   : Indicates that the connection with the D-RTK 2 is abnormal. Refer to the prompts in the app.
   : Displays RTK signal strength when using the Network RTK Service.
   : Indicates that the connection with the Network RTK server is abnormal. Refer to the prompts in the app.
5. Control and HD Video Link Signal Strength
   : Shows the signal strength of the control and HD video downlink connection between the aircraft and the remote controller.
6. Radar Module Obstacle Avoidance Function Status
   : Shows the working status of the obstacle avoidance function.
7. Operation Parameters
   Shows parameters of current spraying operation. The display will vary according to operation mode.
   : Field Area — Shows the total plan area value when planning fields for Route operations via the intelligent operation planning system.

: ① Plan Area — Shows the value of the actual area of the produced flight route after planning fields. There is the following formula: Plan Area = Field Area - Obstacle Area - Collision Avoidance Safety Margin zone. ② Sprayed Area — Shows the value of the area already sprayed (only available when using Route operation or A-B Route operation).

: Obstacle Area — Shows the area value of the obstacles measured when planning fields for Route operations.

: Operation Type and Efficiency — Shows operation type and efficiency settings in Route, A-B Route or M+ mode. Tap to set Pesticide Usage for Spray, choose Efficient or Effective mode, and use the slider to adjust operation efficiency.

: Height — When altitude stabilization function of the radar module is enabled, shows the preset height between the aircraft and the object under it. Appears in all modes except Manual operation mode. Tap to adjust the height.

: Line Spacing — Shows the preset distance when flying left or right in Route, A-B Route or M+ mode. Tap to adjust the value. Note that for Route operations, the value can only be adjusted before performing an operation.

8. Battery Level

99% : Shows the current battery level. Tap to set the Low Battery Warning threshold and view battery information.

9. More Settings

Tap ••• to enter the extended menu to view and adjust the parameters of all other settings.

: Aircraft Settings — Includes spraying completed action, lock the heading in M+, RC signal lost action, operation completed action, Home Point settings, Return to Home altitude, maximum altitude, distance limit, advanced settings, etc.

: Spraying System Settings — Includes nozzle model, flow, air detector calibration, spraying system data display.

RTK : RTK Settings — Includes RTK module switch, RTK signal method and the corresponding settings for each method.

: Radar Settings — Includes altitude stabilization, obstacle avoidance, terrain mode and obstacle display mode.

: RC Settings — Includes RC calibration, stick mode, RC custom key and linking.

HD : Image Transfer Settings — Includes channel mode and sweep frequency chart.

: Aircraft Battery — Includes Low Battery Warning, battery information, etc.

••• : General Settings — Includes map settings, flight route display, etc.

10. Map Mode

: Tap to switch among Standard, Satellite, or Night modes.

11. Location Follow

: Tap to center the map around the aircraft's location at all times, following its location update.

12. Location

: Tap to center the map around the aircraft's location or the latest recorded Home Point.

13. Map Zoom In/Out

: Tap to show the slider, and then slide it to zoom in or out.

14. Operation Control Buttons

Buttons to control during different operation types, including measure an operation area, use, perform, pause, or end an operation, etc.

15. Flight Parameters
    H : When the altitude stabilization function of the radar module is enabled, shows the preset height between the aircraft and the object underneath it.
    D : Horizontal distance from the aircraft to the Home Point.
    V.S : Movement speed across a vertical distance.
    H.S : Movement speed across a horizontal distance.
    F : Pesticide flow rate.
    S.A : The sprayed amount of the liquid. The data is erased if the aircraft is powered off. The sprayed amount resets to zero when the aircraft is powered on again.
16. FPV Camera View
    Displays the real-time image from the FPV camera. Tap to switch between the Map View and the Camera View.
17. Operation Mode Switch Button
    M / M+ / AB : Tap to switch between Manual (M), Manual Plus (M+), and A-B Route (AB) operation modes.
18. Operation List / Point A/B
    : Operation List — Icon displayed in M operation mode. Tap to view the planned fields and operations in progress and use operations.
    : Point A/B — Icon displayed in AB operation mode. Tap to record Point A or B. The color of the icon will change from grey to purple to indicate successful recording. Tap to clear the recorded Point A and B.
19. Obstacle Detection Status
    Shows information on the detected obstacles when the obstacle avoidance function of the radar module is enabled. Front obstacle information appears on the upper screen, and rear obstacle information appears on the lower screen. Red, orange, yellow, and green bars indicate the distance of obstacles in succession. The value indicates the distance between the aircraft and the nearest obstacle.
20. Aircraft Status Box in Multi-Aircraft Control Mode
    Displays the status of all the connected aircraft sorted by number when using Multi-Aircraft Control function. Tap to switch the selected aircraft and the left side of the box will turn blue.

Aircraft

Profile

The MG-1P / MG-1P RTK uses DJI's dedicated A3 Flight Controller to provide multiple operation modes for various applications. The second generation high-precision radar with integrated obstacle avoidance radar module and forward, backward, and downward altitude stabilization radar modules provides obstacle sensing and avoidance functions, and guides the aircraft to maintain a constant distance above crops in specific operation modes. Functions such as operation resumption, system data protection, empty tank warning, Return to Home (RTH) and low battery level warning are also available. The MG-1P RTK has a built-in DJI Onboard D-RTK, providing more accurate data for centimeter-level positioning to ensure more precise and stable flight when used with the DJI D-RTK 2.

⚠
- When using your MG-1P / MG-1P RTK for the first time, activate it in the DJI MG app. Your DJI account and internet connection are required.
- Effective use of pesticides relies on pesticide density, spray rate, spray distance, aircraft speed, wind speed and wind direction. Consider all factors when using pesticides.
- Always fly at an appropriate height above crops to avoid damage.

Flight Modes

The aircraft will fly in P-mode by default.

P-mode (Positioning): The aircraft uses GNSS for positioning. It will revert to A-mode when GNSS signal is weak.

A-mode (Attitude): GNSS is NOT used for positioning and aircraft can only maintain altitude using the barometer. It enters A-mode only when there is weak GNSS signal or when the compass experiences interference.

Attitude Mode Warning

In A-mode, the aircraft cannot position and is easily affected by its surroundings, which may result in horizontal shifting. Use the remote controller to position the aircraft.

Maneuvering the aircraft in A-mode can be difficult. Avoid flying in areas where GNSS signal is weak, or in confined spaces. The aircraft will otherwise be forced to enter A-mode, leading to potential flight risks, please land it in a safe place as soon as possible.

Operation Modes

The MG-1P / MG-1P RTK provides Route, A-B Route, Manual, and Manual Plus operation modes. Switch to one of the three modes in the DJI MG app.

Route Operation Mode

After the operation area and obstacles have been measured, and settings have been configured, the DJI MG app uses a built-in Intelligent Operation Planning System to produce a flight route based on the user's input. Users can use the operation after field planning, and the aircraft can

operate automatically, following the generated flight route. Operation resumption, and the altitude stabilization and obstacle avoidance functions of the radar module are available in this mode. User the app to adjust work efficiency (including flying speed and spray rates). Route operation mode is recommended for large spray areas.

Field Planning

The DJI MG app supports multiple planning methods to for various applications.

Fly the Aircraft

Users can fly the aircraft to desired positions and then use the button on the remote controller or app to add waypoints for operation area and obstacles measurements.

1. Power on the remote controller and enter the DJI MG app. Then power on the aircraft.
2. Tap Field Plan and then select Fly the aircraft.
3. Ensure that the System Status bar on top of the app displays Manual Route (GNSS) or Manual Route (RTK) (if an MG-1P RTK aircraft is in use and the D-RTK is enabled).
4. Tap Start Measuring in the lower right corner of the screen. Fly the aircraft alongside the boundary of the target field. Tap “Add Waypoint” or press Button C2 on the back of the remote controller at each corner of the field.
5. Mark any obstacles:
   Use two methods below to mark obstacles if there is any in the target field.
   ① Tap Start Obstacle Measurement onscreen or press the C1 button on the back of the remote controller, fly the aircraft around the obstacle, and then tap End Obstacle Measurement onscreen or press the C1 button again.
   ② Tap Start Obstacle Measurement C1 onscreen or press the C1 button on the back of the remote controller, fly the aircraft around the obstacle, and tap Add Waypoint onscreen or press the C2 button to add waypoints. Tap End Obstacle Measurement onscreen or press the C1 button when finished.
6. Continue measuring the field by flying the aircraft alongside the boundary and adding waypoints at each corner of the field. Tap End Measurement when the field has been measured and all obstacles have been marked. The DJI MG app will produce a flight route according to the field's perimeter and obstacles.
7. Add calibration point(s): Fly the aircraft to the location of each calibration point. Tap Add Calibration Point onscreen.
   The calibration points are used to offset the bias of the flight route caused by the positioning difference between the remote controller and aircraft. Choose at least one existing landmark as the fixed reference point(s) for calibration when executing the same operation. If none are available, use an easily identifiable object, such as a metal stake.

Walk with RC

Users should walk along the boundary of the field or the obstacles with the remote controller for measurements. Ensure that the aircraft is powered off when planning your flight route.

1. Power on the remote controller and enter the DJI MG app. Tap Field Plan and select Walk with RC.
2. Wait until GNSS signal is strong. Satellite counts should be no less than 10. Positioning accuracy may vary by +/-2 meters. Complete the remaining steps by walking with the remote controller following the same instructions as the “Fly the aircraft” method.

PC GS Pro / Handheld RTK

1. Refer to the corresponding manuals for field planning, and then share the planning data to DJI Agricultural Management Platform or store the data to the microSD card in the remote controller (if PC GS Pro is in use).
2. Using the planning data
   a. Download from the platform:
      To view the data on the platform, go to the main screen of the DJI MG app and tap to synchronize data. Select the desired data for field editing.
   b. Import from the microSD card:
      Ensure that the remote controller is powered off. Insert the microSD card with the planning data from the PC GS Pro into the microSD card slot on the MG-1P remote controller. Then go to the main screen of the DJI MG app. Select the data in the prompted window and import it. To view the data, go to task management on the main screen. Select the desired data for field editing.

Field Editing

Tap any blank space onscreen to enter Edit Status.

1. Edit Waypoints
   Move: Drag the waypoint to move.
   Fine Tuning: Tap the waypoint to show Fine Tuning buttons. Tap to adjust.
   Delete: Tap twice to delete a waypoint.
2. Adjust Route
   Route Direction: Tap and drag the icon near the route to adjust the flight direction of the produced route.
   Line Spacing: Tap the icon at the top of the screen to adjust the line spacing between two neighboring lines.
   Collision Avoidance Safety Margin: Tap the corresponding button on bottom of the screen, and then adjust the safety margin between the route and the edge of the field or obstacle.
3. Edit Obstacles
   Tap and hold the marked obstacle or the position that needs to mark an obstacle on the screen to choose the shape and size of the obstacle in the menu.
   Tap the obstacle on the screen which has waypoints added, then follow the Edit Waypoints instructions to edit the added waypoints for complete obstacle information.
4. Tap Save Field, and then name the operation, choose crop, and configure other parameters.

Performing an Operation

1. Power on the remote controller. Place the aircraft at one of the previously set calibration points and then power it on.
2. Go to the main screen in the DJI MG app, and then tap Execute Operation to enter the Operation View.
3. Tap to select a field in “Fields” tag, and then tap Invoke.
4. Adjust route: adjust the route direction, line spacing and collision avoidance safety margin, etc.
5. Tap Rectify Offset and then Rectify Aircraft Position, or adjust the route position via the Fine Tuning buttons and then tap OK.
6. Tap Start, set operation type, and then tap OK.

7. Takeoff and perform the operation.
   ① If you fly to the targeted height, slide to start spraying.
   ② If the aircraft is on the ground, slide to takeoff and start spraying.

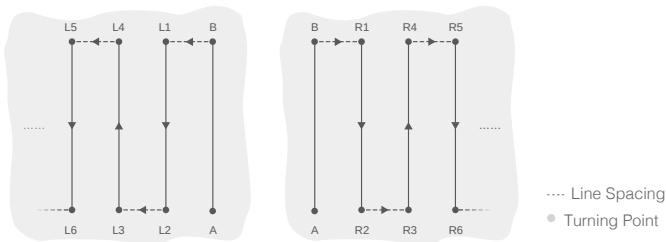
⚠
- Be sure to takeoff in open areas.
- The operation will be automatically cancelled if the motors are started before beginning the operation. You will need to recall the operation in the task list.
- Once started, the aircraft will fly to the starting point of the route and lock its heading in the direction of the first turning point for the duration of the flight path. Users cannot control the aircraft heading via the control stick during the operation.
- The aircraft does not spray while flying along line spacing, but automatically sprays while flying along the rest of the route. Users can adjust operation efficiency (affecting the flying speed and spray rate) and height above the crops in the DJI MG app.
- An operation can be paused by toggling the Pause switch. The aircraft will hover and record the breakpoint, and then the aircraft can be controlled manually. To continue the operation, use and perform the operation in the app and the aircraft will return to the breakpoint automatically and resume the operation. If switching between multiple flight modes is enabled in the app, the Pause Switch will be used as Flight Mode Switch. Therefore, the aircraft may enter A-mode (Attitude) when toggling the switch. Make sure to operate the aircraft with caution.
- The aircraft will hover at the ending point of the flight route after the operation is completed. Instead of hovering the aircraft can also be set to perform other flight actions in the app.

A-B Route Operation Mode

In A-B Route operation mode, the aircraft will travel along a pre-planned route. Operation resumption, data protection, and the altitude stabilization and obstacle avoidance functions of the radar module are available in this mode. Use the app to adjust operation efficiency (affecting the flying speed and spray rate). A-B Route operation mode is recommended for large, rectangular spray areas.

Operation Route

The aircraft travels along a pre-designated square zig-zag route after recording turning points A and B. Under optimal working conditions, the obstacle avoidance function is available and the aircraft maintains distance from the vegetation. The length of the dotted lines, called Line Spacing, can be adjusted in the DJI MG app.



Operation Procedure

⚠
- Maintain line of sight of the aircraft at all times.
- Ensure that the GNSS signal is strong. Otherwise, A-B Route operation mode may be unreliable.

Always inspect operating environments before flying.

Set the operation mode switch button to M (Manual operation mode) when a strong GNSS signal is present and the onscreen display is Manual Route (GNSS) or Manual Route (RTK). Then fly the aircraft to a proper height.

1. Record Points A and B in Order
   Fly the aircraft to the starting point, depicted as Point A/B, hover, and then press Button A/B on the remote controller or tap Point A/B onscreen. The icon for Point A/B will change from gray to purple and the Aircraft Status Indicators will blink red/green after recording the starting points.

⚠
- Points A and B cannot be recorded if the spray tank is empty.
- Be sure to record Point A first and then record Point B and that the distance between Point A and B should be more than 1 m.
- Update Point B by flying the aircraft to a new position to record. Note that if you update Point A, you must also update Point B.
- It is recommended to keep the direction of Point A to B parallel to one side of the rectangular spray area for optimal effect.

- After recording Point A, there will be a menu prompt for operation type settings. Set the amount of pesticide per acre, operation type, Banked Turning, etc. Use the slider to adjust operation efficiency. During the operation, tap the icon at the top of the screen to adjust parameters. You can also adjust operation efficiency via the Settings dial on the remote controller.
- The DJI MG app will display an icon of line spacing after Point A and B are recorded. Tap to adjust the value. The line spacing cannot be adjusted during operation. Switch to Manual operation mode to adjust the value, then go back to A-B Route operation mode.

2. Select the Route
   After Point A and B are recorded, the app produces Route R by default. Tap Direction on the lower right corner of the screen to switch to Route L.
3. Configuring Aircraft Altitude
   Tap on top of the screen to set the desired height above the vegetation. Under optimal working conditions, the radar module will start working automatically and maintain the spraying distance between aircraft and vegetation after performing the operation. Refer to Radar Module (p. 38) for details.
4. Performing an Operation
   Tap Start on the lower right corner and slide to start the operation.

⚠
- If, after recording Points A and B, you fly the aircraft more than five meters away from Point B, Resume will appear on the lower right corner of the screen. Tap Resume, and the aircraft will automatically fly to Point B to perform the operation.

- If the GNSS signal is weak during the operation, the aircraft will enter Attitude mode and exit from A-B Route operation mode. Operate the aircraft with caution. The operation can be resumed after GNSS signal is recovered.
- If you press the A or B buttons during operation while the flying speed of the aircraft is lower than 0.3 m/s, the data for Points A and B of the current route will be erased and the aircraft will hover in place.

- The line spacing can be customized from 3-10 m in DJI MG. It is set to a length of 5 m by default.
- The nose of the aircraft will always point from Point A to Point B regardless of flight direction. Users cannot control the aircraft heading via the control stick during the operation.
- When using the control sticks to control the aircraft in A-B Route operation mode, the aircraft will automatically switch to Manual operation mode, complete corresponding flight behavior, and then hover. To resume the operation, tap Resume onscreen. The aircraft will resume flying along the operation route. Refer to Operation Resumption (p. 36) for details.
- Even though the heading of the aircraft cannot be adjusted, use the control sticks to avoid obstacles if obstacle avoidance function of the radar module is disabled. Refer to Manual Obstacle Avoidance (p. 37) for details.
- During the operation, the aircraft doesn't spray liquid while flying along the direction of the line spacing, and it automatically sprays liquid while flying along the rest parts of the route.

Manual Operation Mode

Tap the operation mode switch button in the app and select M to enter Manual operation mode. You can control all the movements of the aircraft, spray liquid via the remote controller's Spray button, and adjust the spray rate via the dial. Refer to Controlling the Spraying System (p. 21) for details. Manual operation mode is ideal when the operating area is small.

Manual Plus Operation Mode

Tap the operation mode switch button in the app and select M+ to enter Manual Plus operation mode. The aircraft's maximum flying speed is 7 m/s (customizable in the DJI MG app), the heading is locked, and all other movement can be manually controlled in this mode. Users can disable M+ heading lock in the app. Under optimal working conditions, the radar module will maintain the spraying distance between aircraft and vegetation if altitude stabilization function is enabled. Press the corresponding buttons onscreen or C1 or C2 buttons on the remote controller (if customized) to steer the aircraft left or right. The aircraft automatically sprays when accelerating forward, backward or diagonally, but does not spray when flying right or left. Manual Plus operation is ideal for irregularly-shaped operating areas.

- The line spacing cannot be adjusted during operation. Switch to Manual operation mode to adjust the value, then go back to Manul Plus operation mode.
- Spray rate will be adjusted automatically according to the flying speed.
- Operation efficiency (affecting the maximum flying speed and maximum spray rate) and height above the vegetation can be adjusted in the DJI MG app.
- Please fly with caution when steering the aircraft using the app or the C1 or C2 buttons because obstacles on both sides of the aircraft may not be detected if they are in the radar module's blind spots.

